Application No. 09/849,144
Attorney Docket No. 11685US03

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

Claims 1-11 were previously cancelled.

12. (Currently Amended) A method for managing a communication system, comprising:

connecting each line card in a group of line cards to a spare line card local port of a spare line card in the group of line cards; and

upon detection of a failed line card in the group of line cards, rerouting an I/O port of the failed line card through a local port of the failed line card, without completely bypassing said line card, to its spare line card local port, then to a spare line card link port.

13. (Original) The method of claim 12, wherein the group of line cards includes an integer number k of non-spare line cards, and wherein the spare line card includes at least k spare line card local ports.

14. (Original) The method of claim 12, wherein rerouting comprises switching the I/O port of the failed line card through the local port of the failed line card to its spare

line card local port, then switching the spare line card local port to the spare line card link port.

15. (Currently Amended) A communication sub-system, comprising:

a spare line card having a plurality of spare line card local ports, a spare line card link port, and a first switch for connecting the spare line ~~care~~ card link port to one of the spare line card local ports; and

a plurality of non-spare line cards, each of the plurality of non-spare line cards having an I/O port, a local port connected to one of the plurality of spare line card local ports, and a second switch for rerouting the I/O port through the local port to the spare line ~~care~~ card local port, without completely bypassing said line card, upon determination of a failure.

16. (Original) The communication sub-system of claim 15, wherein the plurality of line cards includes an integer number k of line cards, and wherein the spare line card includes at least k spare line card local ports.

17. (Original) The communication sub-system of claim 16, wherein the first switch is at least a 1 x (k +1) switch.

Please add the following new claims:

18. (New) A method for managing a communication system, said method including:

providing a group of a plurality of line cards, each of said line cards communicating data through an I/O port and communicating data through a link port, wherein each of said line cards is capable of internally communicating data from said I/O port to said link port;

providing at least one spare line card having a spare line card I/O port and a spare line card link port;

connecting said line cards in said group of line cards to said spare line card; and

in the event that the link port of one of said line cards of said group of line cards fails rending said line card a link port failed line card, rerouting data received by said link port failed line card through the I/O port of said link port failed line card to said spare line card to provide communication through said link port failed line card between said I/O port of said link port failed line card and said spare line card link port of said spare line card.

19. (New) A communication system, said system including:

a group of a plurality of line cards, each of said line cards capable of data communications through an I/O port and through a link port, wherein each of said line

cards is further capable of internal data communications between said I/O port and said link port; and

at least one spare line card having a spare line card I/O port and a spare line card link port, said at least one spare line card connected to said line cards in said group of line cards, said at least one spare line card capable of data communications through said I/O port and said link port,

a controller, in the event that the link port of one of said line cards of said group of line cards fails rending said line card a link port failed line card, said controller rerouting data received by said link port failed line card through the I/O port of said link port failed line card to said spare line card to provide communication through said link port failed line card between said I/O port of said link port failed line card and said spare line card link port of said spare line card.

20. (New) A line card comprising:

an I/O port supporting passage of I/O port data;

a link port supporting passage of link port data; and

a local port, wherein said local port may be configured to pass both said I/O port data and said link port data

21. (New) The line card of claim 20 wherein said link port is connected to a multiplexer/demultiplexer that multiplexes signals onto said transmission medium and demultiplexes signals from said transmission medium.

22. (New) The line card of claim 21 wherein said multiplexer/demultiplexer is external to said line card.

23. (New) The line card of claim 20 further comprising a 1 x M and a 1 x N switch where N and M are integers greater than one.

24. (New) The line card of claim 20 further comprising an input for receiving signals from a controller.

25. (New) The line card of claim 20 wherein said I/O port data is routed to said link port when there is no indication of a line card failure.

26. (New) The line card of claim 20 wherein said link port data is routed to said I/O port when there is no indication of a line card failure.

27. (New) The line card of claim 20 wherein said I/O port data is routed to at least one of said one or more local ports upon an indication of a line card failure.

28. (New) The line card of claim 20 wherein said link port data is routed to at least one of said one or more local ports upon an indication of a line card failure.

29. (New) A line card comprising:

an I/O port supporting passage of I/O port data;

a link port supporting passage of link port data; and

a local port, wherein said line card includes a first connection allowing I/O port data to be routed to said local port when said first connection is actuated,

wherein said line card includes a second connection allowing link port data to be routed to said local port when said second connection is actuated